

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

CANCEL CLAIMS 1-9

10. (Currently Amended) A process for preparing and/or setting air and steam-permeable structural members containing a mixture of thermoplastic binder and fibers, optionally with additional foam in the form of flakes and/or granules, said process comprising the steps of:

(a) positioning a structural member between shaping surfaces in a pressure resistant chamber of a mold having upper tool and lower tool portions, said shaping surfaces having a low to no heat transfer to or from the mold;

(b) deaerating the chamber by applying a vacuum;

(c) pressurizing said vacuum chamber with a vaporous heat-transfer medium;
and

(d) applying a vacuum to said chamber to evaporate the condensed heat-transfer medium.

11. (Previously Presented) The process according to claim 10, wherein the heat transfer per unit mass of the structural member between the vaporous heat-transfer medium and the pressure resistant chamber is lower than $250 \text{ m}^2/\text{s}^2$ per 1 m^2 of surface of the structural member and per 1 K of heating the structural member.

12. (Previously Presented) The process according to claim 10, wherein the structural member has at least two layers.

13. (Previously Presented) The process according to claim 12 wherein said layers are of different materials.

14. (Previously Presented) The process according to claim 10 wherein said shaping surfaces are perforated metal sheets spaced apart from said pressure resistant chamber thereby defining a steam channeling space.

15. (Previously Presented) The process according to claim 14 wherein said metal sheets are disposed at a distance of from about 2 to about 20 mm from said pressure resistant chamber.

16. (Previously Presented) The process according to claim 10 wherein the shaping surfaces comprise a layer of material having a low thermal conductivity.

17. (Currently Amended) The process according to claim ~~16~~ 14 wherein said sheets have a layer thickness of from about 1 to about 30 mm.

18. (Previously Presented) The process according to claim 16 wherein said layer of material is selected from the group consisting essentially of PTFE, EPDM, epoxy resin or phenolic resin.

19. (Previously Presented) The process according to claim 10 wherein said upper and lower mold tools include contoured blocks which form the mold base.

20. (Previously Presented) The process according to claim 19 wherein said contoured blocks are formed from a material selected from the group consisting essentially of aluminum steel, cast iron or cast aluminum.

21. (Previously Presented) The process according to claim 19 wherein said mold bases are heated to a temperature to between about 120° to 180 °C.

22. (Currently Amended) A process for preparing and/or setting air and steam-permeable structural members containing a mixture of thermoplastic binder and fibers,

optionally with additional foam in the form of flakes and/or granules, said process comprising the steps of:

(a) positioning a structural member between shaping surfaces in a pressure resistant chamber of a mold having upper tool and lower tool portions, said shaping surfaces having a low to no heat transfer to or from said mold;

(b) deaerating the chamber by applying a vacuum within a range of from 0.5 to 0.01 bar absolute;

(c) pressurizing said vacuum chamber with a vaporous heat-transfer medium in the form of steam within a pressure range of from 2 to 10 bar absolute to condensate the structural member; and

(d) applying a vacuum to said chamber to evaporate the condensed heat-transfer medium within a range of from 0.5 to 0.1 bar absolute;

whereby the heat transfer per unit mass of the structural member between the vaporous heat-transfer medium and the pressure resistant chamber is lower than 250 m²/s² per 1 m² of surface of the structural member and per 1 K of heating the structural member.

23. (Previously Presented) The process according to claim 22, wherein the structural member has at least two layers.

24. (Previously Presented) The process according to claim 23 wherein at least two of said layers are of different materials.

25 (Previously Presented) The process according to claim 21 wherein said shaping surfaces are perforated metal sheets spaced apart from said pressure resistant chamber thereby defining a steam channeling space, said sheets being disposed at a distance of from about 2 to about 20 mm from said pressure resistant chamber.

26. (Previously Presented) The process according to claim 21 wherein the shaping surfaces comprise a layer of material having a low thermal conductivity, said

sheets applied to the mold chamber in a layer thickness of from about 1 to about 30 mm.

27. (Previously Presented) The process according to claim 21 wherein said upper and lower mold tools include contoured blocks which form mold bases.

28. (Previously Presented) The process according to claim 27 wherein said contoured blocks are formed from a material selected from the group consisting essentially of aluminum, steel, cast iron or cast aluminum.

29. (Previously Presented) The process according to claim 27 wherein said mold bases are heated to a temperature to between about 120° to 180 °C.